WHITE PAPER: Onondaga Lake: Finding a restorative center in digital space

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Project Director: Dr. Susan Rachel May

Institution: Syracuse University

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BACKGROUND

We are at work on a freely-accessible digital atlas of Onondaga Lake in Syracuse, NY, a little-known but highly significant body of water that played a key role in the human settlement of North America. Under the NEH Digital Humanities Start-up Grant, we concentrated on the southern shore of the lake, where it abuts the City of Syracuse.

The oral tradition of the Haudenosaunee (sometimes called Iroquois) Confederacy traces its origin to the lake shore over a thousand years ago, when leaders of five warring nations gathered to enact the Great Law of Peace. This was the first representative democracy in North America and a model for the U.S. Constitution. The freshwater lake and its nearby salt springs also figure in histories of Jesuit missionaries to North America, the founding of Syracuse, the financing and routing of the Erie Canal, and the rise of Syracuse as a tourist destination and industrial center.

In the 20th century, the lake told its own tragic story when industrial and urban pollution earned it a reputation as the "most polluted lake in America." Its unique fisheries died out, tourists fled, and the city turned its back on the lake, leaving the former salt flats and amusement parks to become brownfields and then vast parking lots for an urban mall. Still, the Onondaga Nation, scientists, and environmentalists insisted that the lake deserved respect, and their dogged efforts have resulted in new stories emerging from the lake's abused shores and waters. One is the story of an unusual indigenous land claim and a court order that prompted a massive, high-tech cleanup of industrial waste and an innovative green infrastructure project to keep the County's sewage out of the lake. Another is the emerging story of a community turning back to the lake, building parks and trails, restoring native vegetation, and celebrating the return of wildlife - and people - to the lake.

PROJECT ACTIVITIES

Our focus has been on creating a prototype digital atlas of the southern shore of Onondaga Lake that includes "scientific and indigenous perspectives, as well as other specialized voices, as coequals." This is still a work in progress, but we are close to being able to make the website publicly accessible.

For the first year of the grant period, we concentrated on employing students in researching the history of the lake shore and engaging members of the community with interest in the lake to tell stories and brainstorm questions that we should address in the atlas. Over the second year we have focused on a variety of ways to turn the heterogeneous materials we collected into visual stories that can be used on a website. Two of us taught a course on Spatial Storytelling in 2016, for which student teams prepared multimedia treatments of different sites south of the lake. Some of the storytelling methods we have employed include story maps, animated map tours, composite videos, and digital recreations of lost landscapes.

For the atlas prototype we have assembled a large amount of information, concentrating on five areas of the land south of the lake. Given that this was once characterized as "impenetrable swampland" and more recently it has been primarily abandoned light-industrial lands and landfill, it was surprising to discover that we could identify several "places" that had multilayered histories. Our efforts to tell multifaceted stories about them have run into some difficulty, however, because the Onondagas have generally been reluctant or unable to say much about the distant history of these lands and there are few people who feel an attachment to the area in more recent times.

We have composed a visual recreation of what the swampland might have looked like before European settlement, based on a map from about 1800, and this has been helpful in eliciting some commentary from Onondaga elders about what they know about the history of the area. Some of this will be integrated into the story maps, but in general, the Onondagas take a more holistic view of land and history, so we will include a separate page on the website with links to video and audio excerpts from their comments about the area.

We have struggled with the issue of representing "blank spaces" on the map where there are unknowns or private knowledge. As an experimental approach, we created a short animated fly-through of a map of the area, highlighting a number of projects and ideas that have been conceived but never realized on this relatively unused tract of land.

We have not yet publicized our results, because the website is not yet available. (When it is, it will be located at <onondagalake.syr.edu>.) We have, however, publicized the process widely, including presenting at the Cornell Geospatial Forum, the Association of American Geographers, an online conference of the Environmental Humanities Initiative, a Canadian conference on "Settler colonialism and critical environmental sciences," which included participants from several Canadian First Nations, and a conference marking the 200th anniversary of breaking ground for the Erie Canal. The audience for these presentations is estimated to total about 400 people.

ACCOMPLISHMENTS

We have gathered significant materials that cast light on many aspects of the study area from a variety of perspectives. Because the prototype is not yet published, however, we have been unable to solicit feedback or use it to collect further public contributions to

the project. We do plan to continue developing the website, using some internal research funds, and to make it available later in this academic year. Our input from Onondaga elders came at the very end of the grant period, and we are still integrating that into the website. We are also working to finalize permissions and documentation of our sources. We received funding from the Syracuse University Humanities Center to enhance the spatial storytelling course and to bring Eric Sanderson, author of *Mannahatta*, to campus to explain his methods of recreating lost landscapes.

AUDIENCES

We have engaged a large number of people in creating the site and at presentations about the site, however. These range from elders of the Onondaga Nation to college students, community groups, and local businesspeople. We have presented to project to well over 200 people at meetings of the Onondaga Lake Watershed Partnership, Cornell Geospatial Forum, Association of American Geographers, Orange Central Homecoming Weekend, the Environmental Humanities Initiative conference, and others. We also employed 10 student assistants on the project for various lengths of time, and there were 16 students in our spatial storytelling course that addressed the study area.

EVALUATION

We did not have an outside evaluation of the project. Our internal assessment is as follows:

The choice of a limited study area (less than one square mile) was appropriate. We were surprised to learn that, even within these limited confines, there was a very large amount of material to gather and process. Resources included online maps (Library of

Congress;, New York State Archives), newspaper clippings and images held at the Onondaga Historical Association, and archival research at Syracuse University and the Onondaga County Public Library system. We wish we had put in place from the start a very structured system for recording each document source, as much time was lost recovering source information after the fact. Eric Sanderson gave us excellent advice about organizing data of this type, and we wish we had consulted with him from the beginning.

The effort to include indigenous perspectives was far less productive than we expected. We had hoped that Phil Arnold's very close relationship to many members of the Haudenosaunee Confederacy would make things easier. But the difficulties lay not in access but in the nature of the questions we were asking and the notion of making the answers public on a website. Onondaga elders are reluctant to go on record as "the" spokespeople for a whole oral tradition, and they have felt particularly cut off from the area in question for centuries, first because of colonial land appropriation and later because of contamination and what they see as an unsuccessful and negligent effort at remediation.

Our biggest successes in engaging Onondaga perspectives came after we created imagery that attempted to imagine what the area might have looked like to their ancestors at a time when this end of the lake was central to their culture and activities. (See illustration on following page.) Whether the images sparked memories of oral storytelling, or whether the fact that we made the images suggested that we wanted to understand the land as they do, we don't know. But it is fair to say that the imagery did prompt more sharing of stories and attitudes toward the lake than any previous efforts we had made.



Recreation of pre-settlement landscape south of Onondaga Lake, based on an annotated map of vegetation from about 1800, with 2016 drone footage for comparison.

The effort to include students in creating the atlas had mixed results. The student projects from our spatial storytelling course were largely excellent, but the students resented being assigned to work on a geographical region of our choosing, rather than theirs. Some student assistants gathered extensive materials but did not organize them in a way that would be useful or accessible to general viewers of the website. Other students started projects and never finished them. But there were also students who took direction well and developed thoughtful, polished, discrete pieces that could fit into the atlas as a whole.

We do believe that the project was worthwhile and the results, when made public, will be of interest to a broad audience. We will publicize it through Syracuse University news sources, the Onondaga Historical Association (including the Skä·noñh Great Law of Peace Center), the Onondaga Lake Watershed Association, and regional digital humanities networks.

CONTINUATION OF THE PROJECT

The website will be maintained at Syracuse University. There is ongoing negotiation about the future of the Skä•noñh Great Law of Peace Center, but when that is resolved, we expect this website to be part of their available programming. It has helped us forge relationships across the digital humanities and sparked the creation of the Spatial Storytelling course at Syracuse University. This is poised to become an integral course in the geohumanities and part of a new major in Environment, Sustainability, and Policy.

Overall, interest in the digital humanities and geo-humanities has burgeoned at Syracuse University since we began this project, and our efforts have contributed to that growth in interest. Onondaga Lake has also become more of a focal point for local

educators, but at the universities and at local secondary schools. Two of us secured a companion grant through the EPA Environmental Education program to train local teachers about the indigenous history of the lake and indigenous values about the natural world. As more teachers take advantage of the curriculum we developed, we expect them to use the atlas in their teaching as well.